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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,301	04/27/2001	Hiromi Oshima	KPO116	1198

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EXAMINER	
CHUNG, PHUNG M	
ART UNIT	**PAPER NUMBER**
2133	10

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/844,301	OSHIMA ET AL.	
	Examiner	Art Unit	
	Phung M. Chung	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama (6,009,028) in view of Todome et al (5,983,374).

As per claims 1-4, Akiyama discloses the invention substantially as claimed, comprising: writing a predetermined logical value in memory cells constituting each of blocks of a memory ;

Reading out the written logical value from the memory cells in each block;

Rendering a decision that when the written logical value and the read-out logical value do not coincide with each other, such memory cell is a failure memory cell. (See Abstract, and col. 10, lines 35-45). Akiyama does not specifically disclose that the function block by which memory in a blocks are erased and made

rewritable. However, it would have been a mater of design choice to a person of ordinary skill in the art, at the time the invention was made, to have memory that is erased and writable as design if needed. Akiyama does not disclose the step of discontinuing the test of such block when the number of failure memory cells in a block being now tested reaches a predetermined number, indicating repair of the memory is impossible by substitution of spare memory components. However, Todome et al disclose discontinuing the test of such block when the number of failure memory cells reaches a predetermined number, indicating repair of the memory is impossible by substitution of spare memory components. (See abstract, and col. 23, lines 12-53). Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teaching of Todome et al into the invention of Akiyama. The advantage of Todome et al is that it is possible to decide whether the device can be replaced with a redundancy circuit provided for each device or not.

As per claims 5-6, these claims are also rejected under the same rationale as set forth in claims 1-4.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Todome et al (5,983,374).

Todome et al disclose the invention substantially as claimed, comprising:

A bad block detection and storage means detecting the presence of a failure memory cell in each block, rendering a decision that, when the number of failure memory cells in each block reaches a predetermined number, such block is a bad block, and storing therein the result of the decision;

Bad address line detection and storage means detecting the presence of a failure memory on the same address line, rendering a decision that, when the number of failure memory cells on the address line reaches a predetermined number, the address line is bad address line, and storing therein the result of the decision; and

A mask control means controlling to interrupt the test of the block being now tested and to write a forced writing signal in memory cells on the detected bad address line in the test of other block, thereby to exclude such memory cells from memory cells to be tested. (See Fig. 1, col. 23, lines 25-39).

5. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung M. Chung whose telephone number is 703-305-9686. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHUNG M. CHUNG
PRIMARY EXAMINER